

## May 5, 2004 - System Issues and Status

**Table 1: Process Strategy/Geier as of 05/05/04  
Active Requests in order of priority (1 of 4)**

<b>Production Request (PR)</b>	<b>Satellite</b>	<b>Production Strategy</b>	<b>Data Product (SS#)</b>	<b>PGEs</b>	<b>Data Dates</b>	<b>Special Status</b>
PR 32-04		ValR11	GGEO (SS11)	11.1P5 11.1P6 11.1P7 11.1P8 11.2P2 11.4P1	3/00 - 6/03 every 3rd month	Rerun GGEO prior to running Edition2A SRBAVG. Run Aqua Beta3 SSF/ SFC while GGEO processing.
PR 37-04	Aqua-FM3	Beta3	SSF (SS4.5-6)	4.5-6.3P3 4.5-6.2P2 4.5-6.4P1	12/02	Rerun crosstrack data to recover data tossed by 3 channel check.
PR 36-04	Aqua-FM3	Beta3	SFC (SS9)	9.2P1 9.3P1 9.4P1	12/02	
PR 31-04		Edition2A	GGEO (SS11)	11.1P5 11.1P6 11.1P7 11.1P8 11.2P2 11.4P1	1/01 - 12/01 3/00 - 12/00 1/02 - 2/03	ValR11 must be approved before this starts.
PR 46-04 to 48-04	Aqua	ValR3	BDS (SS1)	1.1P5 1.2P1 1.3P3	3/21/04 12/15/02	Run ValR3 and wait for e-mail before running any more Edition1 data.
PR 39-04 to 45-04	Terra	ValR3/ValR4	BDS/ ERBEl like (SS1-3)	1.1P3 1.2P1 1.3P3 2.4P1 2.2P1 2.3P1 2.3P2 3.1P1	For 3/04 - present	Run ValR3/ValR4 and wait for e-mail before running any more Edition1 data.
PR18-04	Terra	ValR1	SRBAVG (SS10)	10.1P1	3/00 - 2/03	Edition2A GGEO is input; Delivery date unknown.

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PR 39-04 to 43-04	Terra	ValR4	BDS/ ERBELike (SS1-3)	1.3P3 1.2P1 2.4P1 2.2P1 2.3P1 2.3P2 3.1P1	11/30/03 - 1/1/04	Once ValR4 approved, run Edition2.
PR17-04	Terra	Edition2A	SRBAVG (SS10)	10.1P1	3/00 - 2/03	ValR1 must be approved before this starts.
M PR 99-03		GEOS4	MOA (SS12)	12.1P1	3/04 - present	Standing request to process data as it arrives.
M PR 109-03		GEOS4	PMOA (SS9.1)	9.1P1	2/04 - present	
PR 116-03	TRMM	Beta3	TSI (SS7.1)	7.1.1P1	4/98, 7/98, 8/98	Unknown status at submission time.
PR 97-03	Terra	Edition2-QC	SSF (SS4)	4.1-4.1P2 4.1-4.2P1 4.1-4.2P2 4.1-4.3P1	1/03- 2/03	Only 2003 processing remains! 3/03 - 12/03 have lower priority and appear further down the table.
PR 10-04, 11-04	Terra	Edition2A	SSF (SS4.5-6)	4.5-6.1P2 4.5-6.2P2 4.5-6.4P1	1/03 - 2/03	
PR 9-04	Terra	Edition2A	SFC (SS9)	9.2P1 9.3P1 9.4P1	1/03 - 2/03	Run as SSFs become available.
PR13-04	Aqua-FM3	Beta3	SRBAVG (SS10)	10.1P1	12/02	Run once GGEO and SFC inputs available and SRBAVG code delivered.

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Standing requests AM-PR 1-00 to 7-00	Terra	Edition1	BDS/ ERBELike (SS1-3)	1.1P3 1.2P1 1.3P1 1.3P2 2.1P1 2.2P1 2.3P1 2.3P2 3.1P1 <del>3.2P2</del>	For 3/04 - present	DO NOT PROCESS 3.2P2 - it is on hold.  Need to reprocess 3/04 which contained errors and was deleted from the archive.
Standing requests AM-PR 8A-02 to 11-02	Terra	Edition2	BDS/ ERBELike (SS1-3)	1.2P1 1.3P3 2.2P1 2.3P1 2.3P2 2.4P1 3.1P1 <del>3.2P2</del>	For 7/03 - present	Need Gains and SCR before processing any further (ValRX approved).  DO NOT PROCESS 3.2P2 - it is on hold.
Standing requests PM-PR 7-03A to 10-03	Aqua	Edition1	BDS/ ERBELike (SS1-3)	1.1P5 1.2P1 1.3P1 1.3P2 2.2P1 2.3P1 2.3P2 3.1P1 <del>3.2P2</del>	For 3/04 - present	DO NOT PROCESS 3.2P2 - it is on hold.  Need to reprocess 3/04 which contained errors and was deleted from the archive.
Standing requests PM-PR 11-03, 13-03 to 17-03	Aqua	Edition2	BDS/ ERBELike (SS1-3)	1.3P3 1.2P1 2.2P1 2.3P1 2.3P2 2.4P1 3.1P1 <del>3.2P2</del>	For 7/03 - present	Need Gains and SRF before processing any further (ValRX approved).  DO NOT PROCESS 3.2P2 - it is on hold.
Standing request PM-PR 12-03	Aqua/ Terra	Edition2	ES4/ES9 (SS3)	3.2P1	For 7/03 - present	Need Gains and SRF before processing any further (ValRX approved).
M-PR 3-02		NSIDC- NESDIS	EICE ESNOW (SS4.1)	4.1-4.0P1	Standing request	

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PR 97-03	Terra	Edition2-QC	SSF (SS4)	4.1-4.1P2 4.1-4.2P1 4.1-4.2P2 4.1-4.3P1	3/03 - 12/03	Run at LOW priority after 2/03 finishes.
PR 10-04, 11-04	Terra	Edition2A	SSF (SS4.5-6)	4.5-6.1P2 4.5-6.2P2 4.5-6.4P1	3/03 - 12/03	
PR 9-04	Terra	Edition2A	SFC (SS9)	9.2P1 9.3P1 9.4P1	3/03 - 12/03	

**Table 2: Process Strategy/Geier as of 05/05/04**  
**Coming Soon (1 of 2)**

Active Month	Satellite	Processing Strategy	Data Product (SS#)	Data Dates	Comments
6/04	Terra	Beta2	TSI (SS7.1)	12 months	Unknown status at submission time.
	Aqua	ValR1	SSF(SS4)	7/02, 12/02	Cloud delivery 5/28/04.
	Aqua	ValR1	SFC(SS9)	7/02, 12/02	If needed, delivery 6/4/0.
	Aqua	Edition1A	SSF(SS4)	First 12 months	
	Aqua	Edition1A	SFC(SS9)	First 12 months	
	Aqua	Edition1A	SRBAVG (SS10)	7/02 - 6/03	Unknown delivery date; requires GGEO for 3/03 - 6/03 which has never been processed.
	Aqua	ValR4	BDS/ERBE-like(SS1-3)	1 month	Verify newly delivered gains and spectral response functions.
7/04	Terra	Edition2B	SSF (SS4.5-6)	50 months	Updated ADMs, code correction, correct clear area coverage as needed (50-60 deg lat), new cloud classification parameter.
	Terra	Edition2B	CRS(SS5)	50 months	Delivery expected 5/28/04.
	Terra	Edition2B	SFC (SS9)	50 months	If needed, 6/4/04 delivery.
	Terra	Edition2B	FSW(SS6)	50 months	Assuming no delivery needed.
	TRMM	Beta3	Synoptic SARB (SS7.2)	9 mo	July 16 delivery ??. Rerun 3 months of SYNI to use as input for SYN/AVG/ZAVG.
	Terra	Beta2	Synoptic SARB (SS7.2)	4 seasonal months & 3/00	July 16 delivery ??.
8/04	Terra	ValR4	BDS/ERBE-like(SS1-3)	1 month	Verify newly delivered gains and spectral response functions.
		ValR11	GGEO (SS11)	4 months	3/03 - 6/03; requires redelivery to handle GOES-9 and GOES-12; requires coefficients.
		Edition2A	GGEO (SS11)	4 months	3/03 - 6/03; ValR11 must be approved.
	Aqua	Beta1	CRS(SS5)	First 12 months	July delivery ??
	Aqua	Beta1	FSW (SS6)	First 12 months	Test at SCF to verify no redelivery needed.

**Table 2: Process Strategy/Geier as of 05/05/04  
Coming Soon (2 of 2)**

Active Month	Satellite	Processing Strategy	Data Product (SS#)	Data Dates	Comments
9/04	TRMM	Beta3	SYN/AVG/ ZAVG (SS8)	9 mo	Need Synoptic SARB input.
	Terra	Beta2	SYN/AVG/ ZAVG (SS8)	4 seasonal months & 3/00	Need Synoptic SARB input.
	Aqua	Edition1A	SSF(SS4)	Second 12 months	
	Aqua	Edition1A	SFC(SS9)	Second 12 months	
	Terra	Edition2B	SRBAVG (SS10)	50 months	
10/04		ValR11	GGEO (SS11)	? months	7/03 - 6/04; requires coefficients.
		Edition2A	GGEO (SS11)	7/03 - 6/04	
	TRMM	Beta4	Synoptic SARB (SS7.2)	9 months	
	Terra	Beta3	Synoptic SARB (SS7.2)	12 months	
11/04	TRMM	Beta4	SYN/AVG/ ZAVG (SS8)	9 months	
	Terra	Beta3	SYN/AVG/ ZAVG (SS8)	12 months	
	Aqua	Beta3	SRBAVG (SS10)	7/03 - 6/04	
	Aqua	Beta1	TSI (SS7.1)		Not on Bruce's schedule.
	Aqua	Beta1	Synoptic SARB (SS7.2)		Not on Bruce's schedule.
	Aqua	Beta1	SYN/AVG/ ZAVG (SS8)		Not on Bruce's schedule.

**Table 3: May 5, 2004 - System Issues and Status**

<b>Activity</b>	<b>Lead</b>	<b>Status</b>
CM	Ayers	<ul style="list-style-type: none"> <li>• See Table 4 for SCCR activity since the last DMT meeting. SCCRs that need to be reviewed follow Table 4. (Ayers)</li> <li>• Tested the following deliveries and released them to the ASDC: Inversion (SCCR 523) and Instrument (SCCR 524). (Saunders, Ayers)</li> <li>• Delivered the Clouds S'COOL data file for March 2004 to the ASDC. (Saunders)</li> <li>• Updated the CERES Subsystem Delivery Schedule. (Ayers)</li> </ul>

**Table 4: SCCR Activity April 20 at 12:00 p.m. - May 5 at 12:00 p.m.**

<b>SCCR</b>	<b>S</b>	<b>U</b>	<b>A</b>	<b>C</b>	<b>D</b>	<b>SS</b>	<b>Page No.</b>	<b>Comments</b>
523			X			4.5-4.6		
524	X		X			1	8	
525	X					CERESlib	9	

S=Submitted; U=Updated; A=Approved; C=Closed; D=Disapproved; SS=Subsystem

## **CERES Software Configuration Change Request Submittal**

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Subsystem: Instrument      SCCR Date & TIME: 2004-04-20 13:32:51      SCCR Number: 524

### **Description of Change (Science):**

Fix problems with double drift correction in PGE CER1.1Px, where x = 1 thru 6 for Aqua and Terra. These errors affect Shortwave and Total filtered radiances to a significant degree and Window filtered radiances change by an insignificant degree.

### **Reason for Change (Science):**

Two initialization errors were discovered in the double drift correction code for CER1.1Px that caused Spaceclamp 1 to be incorrect for Shortwave and Total filtered radiances. Another error in determining the stop index for calculating both Spaceclamp 1 and Spaceclamp 2 affected Shortwave, Total and Window filtered radiances, this error is the cause for the insignificant changes to the Window filtered radiance.

### **Description of Change (non-Science):**

N/A

### **Reason for Change (non-Science):**

N/A

Affected PGEs                      : CER1.1Px

Est. Time to Complete Changes : 1 week

Planned Delivery Date           : 4/23/04

Impact                              : March 2004 Edition1 data for Aqua needs to be reprocessed.  
Terra should be reprocessed for consistency purposes.

Originator: COOPER, DENISE L. (SAIC)



## CERES Software Configuration Change Request Submittal

\*\*\* All changes described in this SCCR were made in CERESlib. \*\*\*

Subsystem: CERESlib      SCCR Date & TIME: 2004-05-02 13:20:30      SCCR No.: 525

### Description of Change (Science):

Addition of nine new sites to the list of CERES Validation Regions contained in the CERESlib Module ceres\_valregions.f90

Sioux Falls, SD      (SXF) 43.73N 96.62W (263.38)  
Lindenberg, Germany (LIN) 52.22N 14.12E  
Payerne, Switzerland (PAY) 46.82N 6.95E  
Sede Boqer, Israel (SBO) 30.87N 34.77E  
De Aar, South Africa (DAA) 30.67S 24.00E  
Lauder, New Zealand (LAU) 45.03S 169.68E  
Tamanrasset, Algeria (TAM) 22.78N 5.52E  
Cabauw, Netherlands (CAB) 51.97N 4.93E  
Valencia, Spain      (VAS) 39.57N 1.29W (358.71)  
(Valencia Anchor Station)

### Reason for Change (Science):

Requested by the Science Team

### Description of Change (non-Science):

N/A

### Reason for Change (non-Science):

N/A

Affected PGEs      : N/A

Est. Time to Complete Changes : 1 day

Planned Delivery Date      : May 21, 2004

Impact      : PGEs CER4.5-6.XPX, CER5.1P1, and any other subsystem  
that accesses module

Originator: COLEMAN, LISA H. (SAIC)

**Table 5: May 5, 2004 - Subsystem Issues and Status (1 of 4)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
1.0	Cooper	<ul style="list-style-type: none"> <li>Continued tracking receipt of Aqua and Terra data at ASDC. (Cooper, Snyder)</li> <li>Redelivered Terra and Aqua gain coefficient updates. Aqua has been redelivered to update another parameter that affects double drift correction in the Edition2 processor. (Cooper, Walikainen)</li> <li>Completed draft of TRMM-Terra validation paper. Paper has been delivered to Kory for his comments. (Szewczyk)</li> <li>An error in the double drift correction algorithm in the Edition1 processor was discovered. Delivered updates to CER1.1Px to CERES CM. (Cooper, Spence)</li> <li>Presented an overview of instrument processing to Mike Little, along with estimates of changes needed for NPOESS. (Cooper, Spence)</li> </ul>	
2.0	Walikainen	<ul style="list-style-type: none"> <li>Continuing to examine the production email generated by the QC checker software. (Walikainen)</li> <li>Continuing to inspect ERBE-like Aqua and Terra output plots and QC reports on the Web. Discovered 'blank' Terra gifs [2/28/01]. (Walikainen)</li> <li>Generating Edition Comparison plots for each instrument. (Walikainen)</li> </ul>	
3.0	Walikainen	Combined with above.	
4.1	Sun-Mack	<ul style="list-style-type: none"> <li>Completed processing CloudVis images for Terra-MODIS Edition2-QC through December 2002 for the Alaska ARM NSA Site and images for TRMM-VIRS Edition2 through December 1999 for the Oklahoma ARM Site and the San Nicolas Islands. (R. Brown)</li> <li>Processed QC global images and statistical results for Terra-MODIS Edition2-QC for October 2002 through December 2002. Processed seasonal zonal results for Terra-MODIS Edition2-QC through December 2002. Posted results on the web. (R. Brown)</li> </ul>	

**Table 5: May 5, 2004 - Subsystem Issues and Status (2 of 4)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
4.1	Sun-Mack (Cont'd)	<ul style="list-style-type: none"> <li>• Setup scripts for CloudVis Web Viewer to display data for TRMM-VIRS Edition2 data and updated region images with subset region highlighted. (R. Brown)</li> <li>• Processed and delivered S'COOL data file for March 2004. (R. Brown)</li> <li>• Processed Aqua-MODIS granules in the period of Nov. 19, 2003 - Dec. 14, 2003. Matched the MODIS cloud properties with two airplanes tracks: Citation and ER-2 during Atlantic THORpex Regional Campaign. (Chen, Sun-Mack)</li> </ul>	
4.2	Sun-Mack	Combined with above.	
4.3	Sun-Mack	Combined with above.	
4.4	Miller	<ul style="list-style-type: none"> <li>• Started coordination on testing procedures for the Operating System and compiler upgrade. (Miller)</li> <li>• Completed operating system testing for CER4.1-4.0P1, 1P2, 2P1, 2P2, and 3P1. Two of the subsystem (0P1 and 3P1) needed to be recompiled to run. (Miller)</li> <li>• Modified data statements in new testing software to work with new compiler. The 2-28 elements in the array of structures no longer initializes correctly. (Miller)</li> <li>• Monitored Terra Edition2-QC processing. Thirty-one hours failed for December 2002. All hours had missing or failed IESs. (Miller)</li> </ul>	
4.5	Nolan	<ul style="list-style-type: none"> <li>• Continued to develop new PGE CER4.5-6.6P2. (Hoppe)</li> <li>• Initiated work to add the nine new sites in the list of CERES Validation Regions to the daily Inversion validation region processor. (Hoppe)</li> <li>• Initiated work to convert Terra Edition2B LW flux modules provided by Norman Loeb to work with Toolkit calls and to use a binary SSF as input. (Nolan)</li> </ul>	

**Table 5: May 5, 2004 - Subsystem Issues and Status (3 of 4)**

<b>SS No.</b>	<b>SS Lead</b>	<b>Status</b>	<b>Problems</b>
4.5	Nolan (Cont'd)	<ul style="list-style-type: none"> <li>Initiated work on a graphic representation of the Inversion subsystem. Continued gathering information on the level of effort needed for an NPOESS conversion of the Inversion Subsystem. (Nolan)</li> <li>Initiated a review of HDF5. (Nolan)</li> <li>Added the latest version of Inversion scripts, test suites and test data to CVS repository. (Nolan)</li> </ul>	
4.6	Nolan	Combined with above.	
5.0	Coleman	<ul style="list-style-type: none"> <li>Incorporating and testing with latest version of the radiative transfer model with corrections to the "dust" problem. Results were provided to the SARB Working Group for evaluation. (Caldwell)</li> <li>Prepared overview diagrams of the SARB Subsystem for NPOESS costing exercise. (Coleman)</li> <li>Adding newly requested validation sites to list and preparing associated tables. (Zentz)</li> </ul>	
7.2	Coleman	<ul style="list-style-type: none"> <li>Hooking latest version of the radiative transfer model into the Synoptic Subsystem. (Caldwell)</li> <li>Testing modifications for ingesting TSIB data and writing SYNI data on the CERES nested grid. (Zentz)</li> <li>Preparing to test Synoptic on the ctb-g system. (Zentz)</li> </ul>	
12.0	Coleman	<ul style="list-style-type: none"> <li>No new updates.</li> </ul>	
7.1	Nguyen	<ul style="list-style-type: none"> <li>While running January 2001 Terra TSI, the cloud informations, cloud overlaps and surface data are zeros. An error was found in the GGEO albedo interpolation. To correct this problem, a check for number of clear-sky non-GGEO TOA SW observations was added before calling the non-GGEO albedo monthly-hourly mean subroutine. (Nguyen)</li> <li>Created January 2001 Terra TSI with the nested grid and new GGEO interpolation code from Subsystem 10. Checking the outputs. (Nguyen)</li> </ul>	
8.0	Nguyen	<ul style="list-style-type: none"> <li>No new updates.</li> </ul>	

**Table 5: May 5, 2004 - Subsystem Issues and Status (4 of 4)**

SS No.	SS Lead	Status	Problems
10.0	Nguyen	<ul style="list-style-type: none"> <li>Ran March 2000 Terra with the correction found when testing Subsystem 7.1. Comparing SRBAVGs with and without the corrections. (Nguyen)</li> </ul>	
6.0	Raju	<ul style="list-style-type: none"> <li>Modified sample read program to work on SUN Systems. Updated modules were sent to Ed Kizer. (Raju)</li> <li>Wrote new scripts to compile and create separate executable for each Subsystem PGEs. Updated Test plan to reflect the changes. (Raju)</li> <li>Ran PGE CER6.1P1 using a day's worth of Dec. 2000 Terra FM1 data on lanina to compare the run times with the CER9.2P1 run times. The run time differences were very minimal. (Raju)</li> </ul>	
9.0	Raju	<ul style="list-style-type: none"> <li>Worked with Henry Flippo (SA) to evaluate the CER9.2P1 processor run times. Processed PGE CER9.2P1 on lanina running 6-jobs, 12-jobs, 24-jobs at a time and compared the run times. The results showed that processing 24 jobs ran much slower 65 - 70% than 6-job runs. The analysis found that when the number of jobs exceeded 12 that it placed lanina into a wait I/O state. The analysis of the sar data collected showed that the limiting factors were the limited number of LUN's in the existing partition the jobs were processed on and the fiber channel connection to the RAID attached to lanina. (Flippo, Raju)</li> <li>Wrote new scripts to compile and create separate executable for each Subsystem PGEs. Updated Test plan to reflect the changes. (Raju)</li> <li>Modified PGE CER9.4P1 code to write julian date as a 64-bit word on the SFC HDF product. (Raju)</li> </ul>	
11.0	Stassi	<ul style="list-style-type: none"> <li>Added cal_sensitivity_adj() subroutine to the calibrations module. Ran the July 2001 data two times for all satellites: once with calibrations multiplied by 1.05 and once with calibrations multiplied by 0.95. (Stassi)</li> </ul>	
CERESlib Stassi/Ayers		<ul style="list-style-type: none"> <li>No updates.</li> </ul>	